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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,109

02/13/2006

Adam Achim

710100-021

5475

7590

08/03/2007

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EXAMINER

ZIMMERMAN, JOHN J

ART UNIT

PAPER NUMBER

1775

MAIL DATE

DELIVERY MODE

08/03/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/568,109

Applicant(s)

ACHIM ET AL.

Examiner

John J. Zimmerman

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-11 is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-14 and 17-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## SECOND OFFICE ACTION

### *Amendments*

1. The "AMENDMENT" received June 5, 2007 has been entered. Claims 1-14 and 17-18 are pending in this application.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-8, 12-14 and 17-18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of copending U.S.

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Patent Application No. 10/568,110 in view of Kawachi (U.S. 2003/048961). Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim the same composite multilayer material, having a backing layer, a bearing layer of copper alloy or aluminum alloy, a nickel intermediate layer having a thickness of greater than 4  $\mu\text{m}$  and an overlay layer containing 0-20 wt.% copper and/or silver. The claims differ mainly in that the overlay layer further contains bismuth in the pending application and further contains tin in the copending application. Kawachi, however, clearly shows that Sn, Pb and/or Bi alloys are considered obvious alternative alloy bases for overlay layers in the bearing art (e.g. see paragraphs [0001]-[0003]). In view of Kawachi, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any one of Sn, Pb and/or Bi base alloys for a overlay layer since these are all shown to be considered obvious alternative alloy bases for overlay layers in the bearing art. Regarding the pending method claims, the use of electrodeposition is conventional for application of overlays as evidenced by Kawachi (e.g. see paragraph [0025]) and therefore the pending method claims are not a patentable distinction over the article claims of the copending application. Also copending claim 8 recites an aging process and interdiffusion layer rendering pending method claims reciting heat treatments as patentably indistinct. In addition, the use of the bearing of the copending claims for any conventional bearing usage (e.g. crankshaft main bearing, connecting rod bearing, etc. . . ) would have been obvious in view of the improved properties that would result. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter/as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7, 12 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawachi (U.S. 2003/0048961).

6. Kawachi '961 discloses a bearing having a steel backing layer, a copper alloy or aluminum alloy bearing layer, an intermediate layer and an overlay (e.g. see Figure 2; paragraph [0024]). The intermediate layer can be nickel (e.g. see paragraph [0017]) and the overlay can be a bismuth alloy containing 0.1-10 wt.% copper (e.g. see paragraphs [0011]-[0012]) and 0.1-20 wt.% Ag (e.g. see paragraph [0016]). The overlay is applied by electroplating in a methanesulfonic acid bath (e.g. see paragraph [0025]). The thickness of the intermediate layer can be between 0.5 to 8  $\mu\text{m}$  (e.g. see paragraph 17). While the copper and/or silver ranges in the overlay of Kawachi '961 may not be coextensive with the claimed ranges, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549. Likewise, while the thickness ranges of the overlay of Kawachi '961 may not be coextensive with the claimed overlay thickness ranges, it would have been obvious to

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one of ordinary skill in the art at the time the invention was made to optimize the overlay layer thickness to produce a bearing having conformability, good anti-seizure property and fatigue resistance (e.g. see paragraph [0037]). In addition, the use of the bearing composition of Kawachi for any conventional bearing usage (e.g. crankshaft main bearing, connecting rod bearing, etc. . . ) would have been obvious in view of the improved properties that would result.

7. Claims 1-8, 12-14 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawachi (U.S. 2004/0241489) in view of Kawachi (U.S. 2003/0048961).

8. Kawachi '489 discloses a bearing having a steel backing layer, a copper alloy or aluminum alloy bearing layer, an intermediate layer and an overlay (e.g. see Figure 2; paragraph [0017]). The intermediate layer can be nickel (e.g. paragraph [0013]; Table 1) and the overlay can be a bismuth alloy containing 0.1-10 wt.% copper and 0.5-10 wt.% tin (e.g. see paragraph [0008]). The overlay is applied by electroplating in a methanesulfonic acid bath (e.g. see paragraph [0025]). The overlay can have a thickness of 3-15  $\mu\text{m}$  (e.g. see paragraph [0020]) and the bearing is exposed to elevated temperatures that would inherently cause some interdiffusion between the layers (e.g. Table 2; paragraph [0034]). Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to

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manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977). When there is a substantially similar product, as in the applied prior art, the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show that the same process of making, see *In re Brown*, 173 U.S.P.Q 685, and *In re Fessmann*, 180 U.S.P.Q. 324. While the copper and/or silver ranges in the overlay of Kawachi '489 may not be coextensive with the claimed ranges, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549. Likewise, while the thickness ranges of the overlay of Kawachi '489 may not be coextensive with the claimed overlay thickness ranges, the ranges overlap and it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to practice the thickness ranges of Kawachi '489 over his entire disclosed range. Kawachi '489 may differ from the pending claims in that while Kawachi '489 does disclose the use of a nickel intermediate layer between the bearing layer and the overlay, Kawachi '489 may not disclose the thickness of this layer. On this issue, however, Kawachi '961 clearly shows that the optimum thickness range for the nickel intermediate layer is between 0.5-8  $\mu\text{m}$  (e.g. see paragraph [0017]). In view of Kawachi '961, it would have been obvious to one of ordinary skill in the art at the time the invention was made to manufacture the nickel intermediate layer of Kawachi '489 over a thickness range of 0.5-8  $\mu\text{m}$  because Kawachi '961 discloses that intermediate nickel layers in this thickness range enhances bonding of the multilayer bearing. In addition, the use of the

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bearing composition of Kawachi for any conventional bearing usage (e.g. crankshaft main bearing, connecting rod bearing, etc. . . ) would have been obvious in view of the improved properties that would result.

***Allowable Subject Matter***

9. Claim 9-11 are allowed since the prior art of record does not disclose or make obvious the bath composition required by method claim 9.

***Response to Arguments***

10. Applicant's arguments filed June 5, 2007 have been fully considered but they are not persuasive.

11. A terminal disclaimer over copending U.S. Patent Application No. 10/568,110 was received on June 5, 2007. The terminal disclaimer, however, was not approved because the attorney or agent is not of record in this application. Therefore, the provisional non-statutory obviousness-type double patenting rejection has been maintained.

12. Regarding the rejections under 35 U.S.C. 103(a) applying Kawachi (U.S. 2004/0241489) and/or Kawachi (U.S. 2003/0048961), applicant argues that the Kawachi references fail to teach an overlay that consists of copper *and* silver. It should be noted, however, that independent claim 1 allows for either or both of copper or silver to be zero and therefore both copper *and* silver are not required by the pending claims. In addition, independent claims 17 and 18 are also



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not commensurate with applicant's arguments since they comprise an overlay that allows for either copper "and/or" silver.

### *Conclusion*


13. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Claims 12-14 were previously not rejected over the prior art, but applicant has amended these claims to omit previously required subdividing and shaping steps and thus the claims have been broadened to fall within the purview of the applied prior art. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (571) 272-1547. The examiner can normally be reached on 8:30am-5:00pm, M-F. Supervisor Jennifer McNeil

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can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John J. Zimmerman  
Primary Examiner  
Art Unit 1775

jjz  
July 30, 2007